JSAVES™ MOLLE SYSTEM
USER MANUAL

April 2008

OPERATIONAL AND MAINTENANCE INSTRUCTIONS

FOR JOINT SERVICES AIRCREW VEST AND EXTRACTION SYSTEM™ (JSAVES™)

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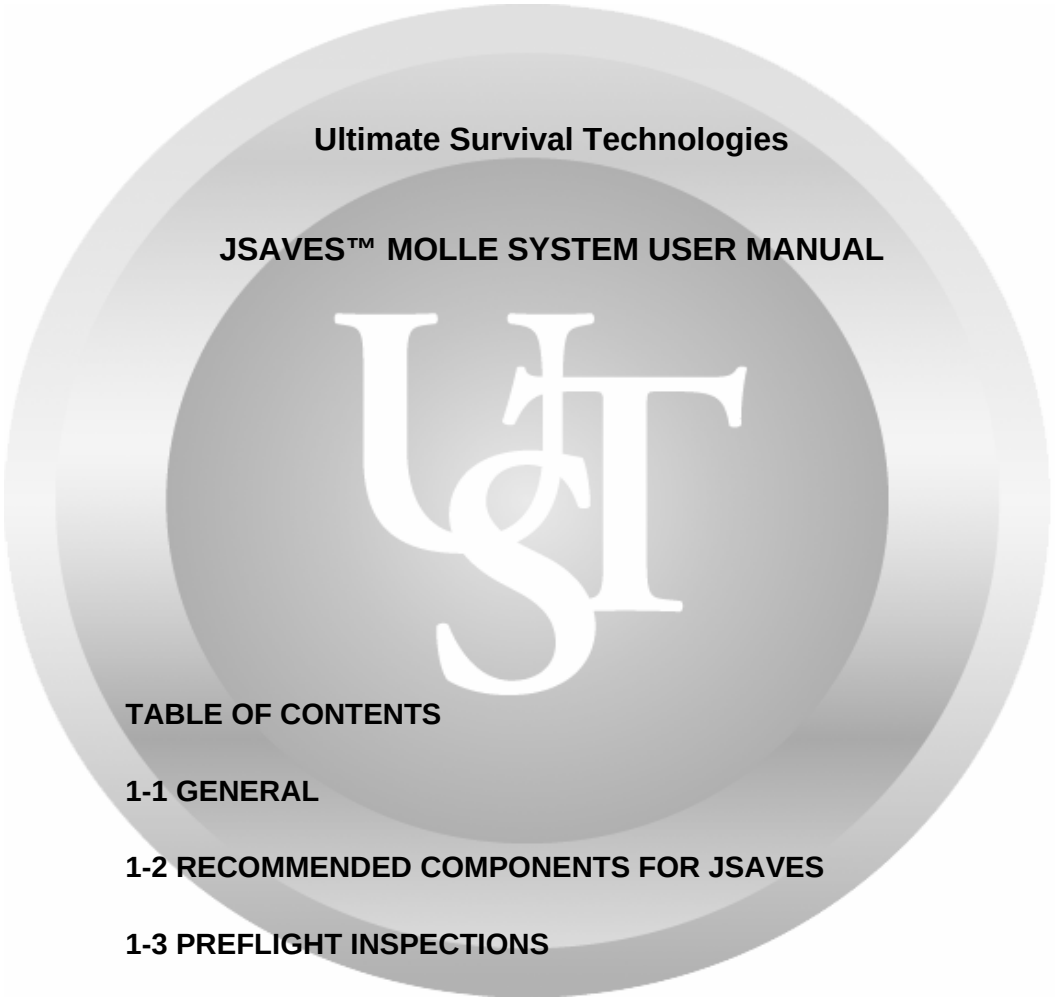

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1.1 JOINT SERVICES AIRCREW VEST AND EXTRACTION SYSTEM™ (JSAVES™)

1-1 GENERAL

Features: The Joint Services Aircrew Vest and Extraction System™ (JSAVES™) has been specifically designed to provide all services and commands with a low profile vest and harness system. This system provides placement of mission-essential survival, evasion, medical, and rescue items for downed aircrew members, yet incorporates a full-body harness system that provides a vest with pocket security, rescue/recovery lift extraction, and restraint capability to the aircraft door gunners, rescue personnel, and load masters.

JSAVES™ consists of a full body extraction harness, MOLLE vest base and various pocket options. The JSAVES system has been designed to allow maximum configuration control. Vest base, harness options and various pockets are all sold individually.

Leg Straps: JSAVES offers two style of leg strap on the harnesses. Back leg straps allow backend crewmembers the ability to disconnect for comfort during extended flight operations but can be quickly attached for mission requirements. Thigh leg strap configuration provides leg straps for pilots/copilots that can be stowed away but easily available for extraction capability. With leg straps attached the JSAVES provides a complete four point restraint system.

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Thigh Leg Strap: Leg straps extend Down front of thigh and wrap around Thigh with quick-connect buckles.

Back Leg Strap: Leg straps extend off of waist belt at the rear and come up through legs, attaching at upper front thigh with quick-connect buckles.

Y-Strap: Y-strap configuration allows for backend crewmembers to be secured to aircraft attaching points or the MARS system to prevent falling from aircraft and provide a secure restraint for mission requirements. The Y-strap can also be used for rear extraction capability.

The non Y-strap configuration is for use by pilot/copilot positions since they are restrained by the aircraft four point seat harness. The non Y-strap configuration does not provide rear extraction capability, however all JSAVES provide front extraction capability.

1-2 RECOMMENDED COMPONENTS FOR JSAVES

Survival components may be installed and positioned at the discretion of the Major Command. The Major Command shall provide adequate instructions for installation and location of survival components. JSAVES should not be overloaded and vest components should not be duplicated with items in the survival kit without approval of the Major Command.

NOTE

AERP and CRU-80 filter/blower can integrate with JSAVES as it does with other survival vests, i.e. Air Ace, SRU-21/P. Survival items and accessories shall not exceed established inspection intervals in accordance with applicable Technical Order.

WARNING

JSAVES cannot be used as an extraction or parachute harness without both leg straps securely fastened around the legs of the wearer.

1-3 PREFLIGHT INSPECTIONS

WARNING

Any restraint systems but be static weight tested to 500 pounds prior to service.
Failure to comply could result in serious injury or death.

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Prior to use, the wearer will inspect the JSAVES as follows:

1-3.1 Inspect the JSAVES harness webbing for cuts, tears, fraying, seam separations, loose stitching, and broken or distorted bar tacking. Inspect the general condition of all hardware.

1-3.2 Inspect JSAVES vest base and pockets for fraying, cuts, tears, loose stitching and overall condition. Surface fraying along edges is acceptable provided it does not reduce thickness or width of webbing and does not incorporate visible cuts, tears, or holes.

1-3.3 Inspect all snaps, slides, and hook and pile fasteners for proper operation.

1-3.4 Inspect to assure that all mission/survival components are installed.

1-4 PERIODIC INSPECTIONS

1-4.1 A periodic inspection of in-service JSAVES installed components shall be accomplished every 180 days. JSAVES worn on a daily basis will be inspected every 90 days.

1-4.2 The periodic inspection will include those requirements outlined in Paragraph 1-3.

1-4.3 Components will be inspected in accordance with applicable Technical Orders.

1-4.4 Update inspection data records and database.

1-5 ACCESSORIES AND COMPONENT PLACEMENT

NOTE: Components will be attached in accordance with T.O. 14S1-3-51**.**

1-5.1 All MOLLE pockets must be attached completely and securely by weaving web straps on pocket backs through MOLLE vest base. Weave strap through vest base, then through subsequent loop on pocket, repeating the process until web strap easily snaps to pocket base.

WARNING

Ensure that no web loops are skipped during this process.
Proper installation is critical for pocket and component security.

1-5.2 All pockets contain D-ring attachment loops for securing survival/vest components.

1-5.2 A small snap hook may be attached to the free end of a lanyard for securing the radio.

1-5.3 Shoulder extraction hardware can be integrated with the JSAVES.

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Extraction hardware not included, but can be integrated with JSAVES.

NOTE

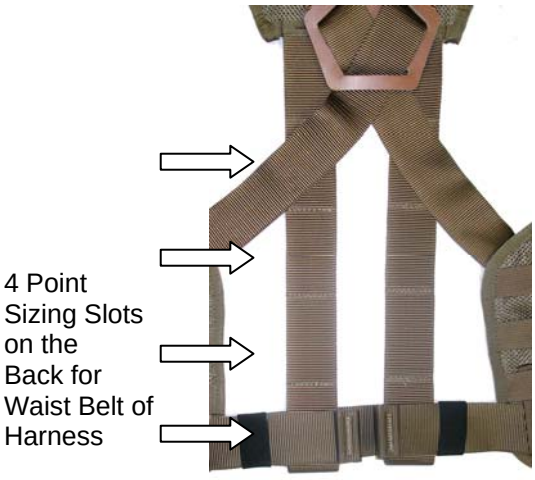
When inserting survival mirror into vest pocket, mirror should be installed with the reflective side facing toward the body.

1-6 FITTING

JSAVES provides multiple sizing adjustment points.

WARNING

Proper and snug fit is critical to ensure safe retention and extraction capabilities. Ensure that all fitting points have been evaluated and adjusted for maximum comfort and safety.



1-6.1 Properly fitted, the waist belt is connected in the front and adjusted on each side of the body. The belt should be comfortably positioned at belt line. The back half of the waist belt passes through the sizing strap on the back of the survival vest. The four loops on the back vest straps allow for a comfortable fit based upon torso size and other gear or equipment the user may be wearing.

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1-6.2 The shoulder straps should cross in the center of the back between the shoulder blades and pass through the integrated vest loops provided.

1-6.3 The harness strap should also pass through webbing on front of vest. Mid-range sized individuals will size the shoulder buckle as shown below. Small-stature individuals will have to pass the buckle under the webbing channel to create a tighter and more comfortable fit.

1-6.4 The waist belt in front should pass through the 2” slits along the bottom edge of the vest.

1-6.5 Additional 3.5” belt loops are provided on the outside of the vest for individuals wishing to wear the military web belt. When used together, the web belt should be positioned in the provided belt loops and connected over the top of the harness buckle.

1-6.6 When not needed, leg straps on certain harness models can be stowed comfortably in interior pockets located underneath exterior vest pockets. Pull snap tab open, feed leg straps up into pocket, and re-snap.

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1-6.7 QUICK FIT GUIDE

Step 1: Put JSAVES Vest and Harness system on.
Connect middle and lower front buckles. JSAVES will be loosely fitting on most individuals.

Step 2: Adjust the shoulder straps on both side of the harness system. Pull loose webbing strap down, and use black elastic band to secure strap. Remaining loose strap can be fed back into harness slot opening.

Note: On older JSAVES systems, buckles can be fed through web loop for shorter individuals. See note and photograph on 1-6.3.

Step 3: Adjust the side waist straps on both sides of the harness system until snug.

Note: You will be doing final adjustments to the side strap later, so proceed to Step 4 before tucking in any loose webbing from the strap.

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Step 4: Unbuckle one side of the waist buckles.

Step 5: Pass waist strap through one of the four slots that tail off the back of the JSAVES vest. Select the slot that positions the waist belt at the proper height for your stature. (See also section 1-6 for photo of four slots.)

Step 6: Refasten waist strap buckle.

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Step 7: Tuck in any loose webbing from the waist adjustment straps. Use black elastic band to secure strap.

Step 8: Review fit to make sure JSAVES is snug and secure against body.

Step 9: The upper corners of the back of the JSAVES vest base can be tacked to the harness cross piece for maximum comfort and pocket stability. Grab a hold of the upper corner of the back of the vest, where lower harness cross piece passes through. Position the upper corner of the vest where it feels most secure and comfortable.

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Step 10: **Mark the location on the harness and vest.**

Step 11: **Tack.**

Machine Tacking: Use nylon thread conforming to Specification V-T- 295, Type II, Class 1, Size E. Stitching shall be in accordance with Type 301, Federal Standard 751, use 8 to 10 stitches per inch. Ends of stitching shall be backstitched not less than 1/2 inch.

Hand Tacking: 8/4 thread, singled, waxed, or equivalent, secured with a surgeons and locking knot.

Step 12: Add pockets. Ensure that all MOLLE webbing is woven through the entire length of each pocket, alternating between web loops on pocket and vest base.

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1-6.8 INSTALLING LPU- 37/P

1-6.8.1 When the JSAVES and life preserver LPU 37/P unit are worn together the following procedures should be used:

1-6.8.2 Place the LPU as it would lie around the neck of the JSAVES. Pull the long webbing straps at the base of the LPU through the harness pass-through slits that are positioned at the chest on the JSAVES vest and weave through the ladder lock attached to the quick clip on the inside base of the JSAVES vest.

1-6.8.3 Slide webbing strap with snap attached, located above grommet on LPU, through the elastic keeper on the JSAVES front shoulder and snap into place onto LPU.

1-6.8.4 Pull webbing straps at top/back neck area of LPU through the grommets on the back of the JSAVES vest and attach through ladder locks located below grommets on JSAVES vest.

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1-6.9 INSTALLING LPU- 10/P

1-6.9.1 When the JSAVES and life preserver unit LPU-10/P are worn together the following procedures should be used:

1-6.9.2 Fit LPU-10/P life preservers to the Aircrew.

1-6.9.3 JSAVES is donned and LPU-10/P life preservers are pulled through each armhole.

NOTE

If body armor is required, fit the LPU 10/P over the body armor.

NOTE

LPU-10/P may interfere with access to Aqua Lung™ bottle and other survival components.

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1-6.9 USING THE Y-STRAP SYSTEM

1-6.9.1 The JSAVES Y-Strap is an optional accessory to the JSAVES system and must be used with a JSAVES harness that has Y-strap capability.

JSAVES Y-STRAP

1-6.9.2 To connect the Y-Strap to the JSAVES Harness, insert silver female portion of the Y-strap buckle into the black male portion located on the JSAVES harness (Fig. 1). The harness buckle exits the JSAVES vest base through the slit on both sides, under the arms (Fig. 2).

Fig. 1: Y-Strap Connection

Fig. 2: Location of Y-Strap Connection Points

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1-6.9.3 To release harness from Y-strap, press wings of both sides of the silver female buckle and pull to separate.

JSAVES Y-STRAP CONFIGURATION

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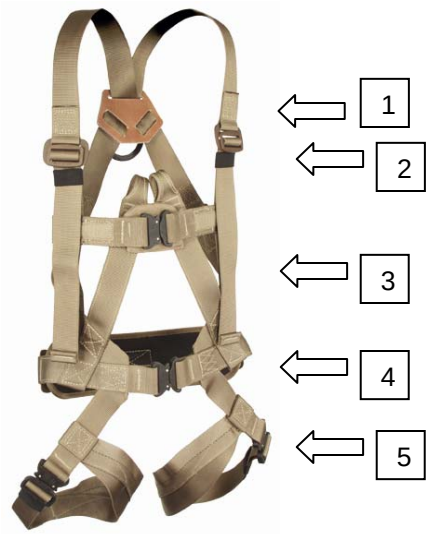
WITHOUT THE VEST



Shoulder extraction hardware not included. Thigh Strap Harness pictured.

The JSAVES harness can be worn stand-alone.

1-6.10 Proper fit is achieved by connecting the front waist buckle together first, then tightening the waist belt (4) so that it is positioned comfortably around the waist at your belt line.

1-6.11 With the shoulder straps crossed in the back and positioned over the shoulders (1), connect shoulder straps to the vertical chest strap (3) that extends up from the waist belt with appropriate hardware (2).

1-6.12 The cross connecting hardware in the back should lay flat and comfortable between the shoulder blades.

1-6.13 Leg straps (5) should be adjusted for comfort with the wearer standing upright.

1-7 CLEANING

NOTE

To retain fire retardant properties, JSAVES should not be washed more than 50 times. Document washings on applicable forms.

1-7.1 Manufacturer recommends spot cleaning with mild soap (Ivory or equivalent).

1-7.2 Soiled JSAVES materials may be laundered by hand in warm water (never dry clean) using mild soap (Ivory or equivalent). Close the slide fasteners to prevent damage to the fabric. Care shall be taken to assure the garment is thoroughly rinsed free of soap. Squeeze out excess water and hang garment up to dry in a well-ventilated area.

1-7.3 The JSAVES vest is machine washable. Separate from harness and wash in warm, not hot, water. Tumble dry on low or hang out to dry. Do not bleach.

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NOTE

Do not iron or press

1-8 MAINTENANCE

WARNING

No repairs should be made to the JSAVES harness by anyone not certified as a parachute rigger, survival equipment specialist, or the manufacturer. Repairs made to the harness void any written or expressed warranties of the manufacturer.

1-8.1 JSAVES that have become deteriorated through usage, mildew, and perspiration shall be condemned.

1-8.2 Repair of JSAVES vest materials and pockets will be limited to sewing of rips, loose stitching, seam separations, patching when necessary with like fabric, and replacing snaps and slide fasteners. JSAVES internal pockets, holsters, and attachments can be individually repaired or replaced if damaged.

1-8.3 All repairs requiring sewing will be done with nylon thread conforming to Specification V-T- 295, Type II, Class 1, Size E. Stitching shall be in accordance with Type 301, Federal Standard 751, use 8 to 10 stitches per inch. Ends of stitching shall be backstitched not less than 1/2 inch. No repairs should be made to the JSAVES harness by anyone not certified as a parachute rigger, survival equipment specialist, or the manufacturer. Repairs made to the harness void any written or expressed warranties of the manufacturer.

NOTE

A maximum of 8 (hand sewn) repairs are authorized on JSAVES, not to exceed 4 per side.

1-8.4 Hand sewing: Holes and seam separations no larger than 1/2 inch may be repaired by hand sewing. Sew affected area with a doubled threaded (V-T-295, Type II, Class 1, Size E) nylon thread.

1-8.5 Holes on the webbing (mesh) section: tie ends of thread together creating a larks head knot at the beginning of the repair. Continue with overthrow (whipstitch) stitches over affected area. End repair with a surgeon's stitch and locking over-hand knot toward the inside of the JSAVES.

1-8.6 Holes and seam separations on the JSAVES (solid) section: tie ends of thread together creating a binder's knot at the beginning of the repair. Continue with overthrow (whipstitch) stitches over affected area. End repair with a surgeon's and locking over-hand knot toward the inside of the JSAVES.

1-8.7 Trim excess thread to 1/2 inch minimum.

1-8.8 When more than 8 (hand-sewn) repairs are present and/or required; remove the (old) stitching and repair according to Paragraph 1-8.3 (machine sewn).

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JSAVES Part Numbers

Vest Base and Harness Options:

Part Number	Description
1SV-IR/P-J1M	JSAVES MOLLE VEST (BASE ONLY)- BLACK (POCKET SETS SOLD SEPARATELY)
1SV-IR/P-J2M	JSAVES MOLLE VEST (BASE ONLY)- TERRA (POCKET SETS SOLD SEPARATELY)
1SH-MA/R-JSV1	JSAVES HARNESS- THIGH LEG STRAP- BLACK
1SH-MA/R-JSV2	JSAVES HARNESS- THIGH LEG STRAP- TERRA
1SH-MA/R-JQR1	JSAVES HARNESS- THIGH LEG STRAP- QUICK RELEASE CONNECTION- BLACK
1SH-MA/R-JQR2	JSAVES HARNESS- THIGH LEG STRAP- QUICK RELEASE CONNECTION- TERRA
1SH-MA/R-JTY1	JSAVES HARNESS- THIGH LEG STRAP- Y STRAP CAPABLE- BLACK
1SH-MA/R-JTY2	JSAVES HARNESS- THIGH LEG STRAP- Y STRAP CAPABLE- TERRA
1SH-MA/R-JBY1	JSAVES HARNESS- BACK LEG STRAP- Y STRAP CAPABLE- BLACK
1SH-MA/R-JBY2	JSAVES HARNESS- BACK LEG STRAP- Y STRAP CAPABLE- TERRA
1SH-MA/R-JBL1	JSAVES HARNESS- BACK LEG STRAP- BLACK
1SH-MA/R-JBL2	JSAVES HARNESS- BACK LEG STRAP- TERRA
1SH-MA/R-JBQR1	JSAVES HARNESS- BACK LEG STRAP- Y STRAP- BLACK
1SH-MA/R-JBQR2	JSAVES HARNESS- BACK LEG STRAP- Y STRAP- TERRA

Pockets and Accessories

Part Number	Description
1JSV-HYDSYS100-B	100 OZ. HYDRATION SYSTEM FOR THE JSAVES, BLACK
1JSV-HYDS50	50 OZ. HYDRATION SYSTEM FOR JSAVES- TERRA
1JSV-HYDS100	100 OZ. HYDRATION SYSTEM FOR JSAVES- TERRA
MP-201VB	4.5X4 UTILITY POCKET- MOLLE ATTACHMENT- BLACK
MP-201VT	4.5X4 UTILITY POCKET- MOLLE ATTACHMENT - TERRA
MP-211VB	FLASHLIGHT POUCH- MOLLE ATTACHMENT- BLACK
MP-211VT	FLASHLIGHT POUCH- MOLLE ATTACHMENT- TERRA
MP-219VB	MAGAZINE POUCH- M4/M16- HOLDS 2- MOLLE ATT. BLACK
MP-219VT	MAGAZINE POUCH- M4/M16- HOLDS 2- MOLLE ATT. TERRA
MP-220VB	BATTERY POCKET- BATTERY FOR PRC112 RADIO- MOLLE ATTACHMENT- BLACK
MP-220VT	BATTERY POCKET- BATTERY FOR PRC112 RADIO- MOLLE ATTACHMENT- TERRA
MP-221VB	E2C BLOWER POCKET
MP-221VT	E2C BLOWER POCKET
MP-301VB	7X4 UTILITY POCKET- MOLLE ATTACHMENT - BLACK
MP-301VT	7X4 UTILITY POCKET- MOLLE ATTACHMENT - TERRA

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MP-306VB	HOLSTER- MOLLE ATTACHMENT - BLACK
MP-306VT	HOLSTER- MOLLE ATTACHMENT - TERRA
MP-309VB	DOUBLE MAGAZINE POUCH- MOLLE ATTACHMENT - BLACK- PISTOL
MP-309VT	DOUBLE MAGAZINE POUCH- MOLLE ATTACHMENT - TERRA- PISTOL
MP-314HT	FLARE POCKET - MOLLE ATTACH - TERRA
MP-314VB	FLARE POCKET- MOLLE ATTACHMENT - BLACK
MP-401HB	4.5X8 UTILITY POCKET- MOLLE ATTACHMENT - BLACK
MP-401HT	4.5X8 UTILITY POCKET- MOLLE ATTACHMENT - TERRA
MP-404VB	8.5X4 UTILITY POCKET- MOLLE ATTACHMENT - BLACK
MP-404VT	8.5X4 UTILITY POCKET- MOLLE ATTACHMENT - TERRA
MP-406VB	8.5X4 UTILITY POCKET WITH KNIFE SHEATH- MOLLE ATTACHMENT - BLACK
MP-406VT	8.5X4 UTILITY POCKET WITH KNIFE SHEATH- MOLLE ATTACHMENT - TERRA
MP-422VB	KNIFE SHEATH POCKET WITH OUTER TRD SHEATH- MOLLE ATTACHMENT - BLACK
MP-422VT	KNIFE SHEATH POCKET WITH OUTER TRD SHEATH- MOLLE ATTACHMENT - TERRA
MP-422VB-X	KNIFE/TRD POCKET COMBO WITH KNIFE AND TRD- MOLLE ATTACHMENT - BLACK
MP-422VT-X	KNIFE/TRD POCKET COMBO WITH KNIFE AND TRD- MOLLE ATTACHMENT - TERRA
MP-421VB	VERTICAL RADIO POCKET FOR PRC-112- MOLLE ATTACHMENT - BLACK
MP-421VT	VERTICAL RADIO POCKET FOR PRC-112- MOLLE ATTACHMENT - TERRA
MP-421HB	HORIZONTAL RADIO POCKET FOR PRC-112- MOLLE ATTACHMENT - BLACK
MP-421HT	HORIZONTAL RADIO POCKET FOR PRC-112- MOLLE ATTACHMENT - TERRA
MP-423VB	SMALL POUCH- 5X5X2.75 - MOLLE ATTACHMENT - BLACK
MP-423VT	SMALL POUCH- 5X5X2.75 - MOLLE ATTACHMENT - TERRA
MP-424VB	SIDE POCKET- ACCESSORY- 7X5- MOLLE ATTACHMENT - BLACK
MP-424VT	SIDE POCKET- ACCESSORY- 7X5- MOLLE ATTACHMENT - TERRA
MP-425VB	5" X 5" POCKET- FIRST AID KIT - MOLLE ATTACHMENT - BLACK
MP-425VT	5" X 5" POCKET- FIRST AID KIT - MOLLE ATTACHMENT - TERRA
MP-426VT	CSEL RADIO POCKET- MOLLE ATTACHMENT- TERRA
MP-426VB	CSEL RADIO POCKET- MOLLE ATTACHMENT- BLACK
MP-505VB	NALGENE BOTTLE POCKET- MOLLE ATTACHMENT - BLACK

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MP-505VT	NALGENE BOTTLE POCKET- MOLLE ATTACHMENT - TERRA
MP-503VT	AQUA LUNG/HEEDS BOTTLE POCKET- MOLLE ATTACHMENT - TERRA
MP-504VB	LARGE POUCH- 8.5X5.75X3.5 - MOLLE ATTACHMENT - BLACK
MP-504VT	LARGE POUCH- 8.5X5.75X3.5 - MOLLE ATTACHMENT - TERRA
MP-603HB	6X8 UTILITY POCKET- MOLLE ATTACHMENT - BLACK
MP-603HT	6X8 UTILITY POCKET- MOLLE ATTACHMENT - TERRA

To Order:

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